

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

--	--	--	--	--	--	--	--	--	--

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2019/2020

BJA1034 – JAVA PROGRAMMING FUNDAMENTALS

(All sections / Groups)

18 OCT 2019
9.00 a.m. -11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This paper consists of two pages, excluding the cover page.
2. This exam is a computer-based examination.
3. Answer this exam by using the **Eclipse IDE** and **Microsoft Word**, which installed into the computer.
4. Create a folder in the computer desktop location. Name the folder with student ID. All the answer should save into the created folder. The file should be either a java file (filename.java) or Microsoft word file (filename.docx)
5. There are 3 questions. Answer **ALL** questions.
6. Copy the folder named with your student ID to the provided USB for examination submission.

Question 1

- a. Write a Java Programme in Eclipse IDE to compute the distance between two points on the surface earth. The formula to calculate the distance between two points is shown as follow:

$$d = \text{radius} \times \arccos(\sin(x_1) \sin(x_2) + \cos(x_1) \cos(x_2) \cos(y_1 - y_2))$$

The radius of the earth is 6371.01 Kilometre. The user will input the coordinate system in degree unit.

***Hints: The arc cosine (arccos) function is available as Math.acos package in java.**

Please name this java class as "question1". Make sure the **public static void main (String[] args)** is selected.

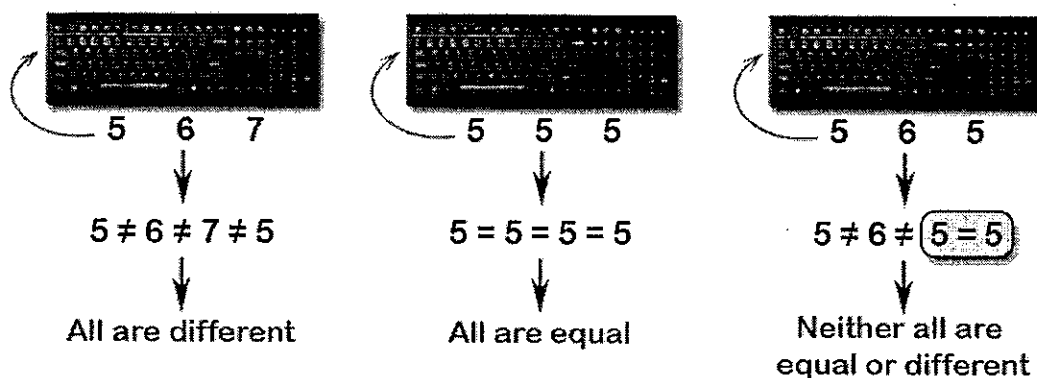
(15 Marks)

- b. According to the Java programme that you written in Question 1-part a, draw a flow chart of the written Java Programme. Microsoft Word should be used to answer this question. Name this file as "question1b". Save this file into the folder which located in the computer desktop and the folder name is your student ID number.

(10 Marks)

Question 2

Write a Java program with the Eclipse IDE that accepts three numbers and prints "All numbers are equal" if all three numbers are equal, "All numbers are different" if all three numbers are different and "Neither all are equal or different" otherwise. Diagram below elaborate the programme scenario.



Please name this java class as "question2". Make sure the **public static void main (String[] args)** is selected.

(25 Marks)

Continued ...

Question 3

Write a Java programme with Eclipse IDE to find the number of days in a month.

Test Data
Input a month number: 2 Input a year: 2016 Expected Output : February 2016 has 29 days

****Hints:** Remember the leap year.

Please name this java class as "question3". Make sure the **public static void main (String[] args)** is selected.

(25 Marks)

End of Page